

ANCHORAGE AMATEUR RADIO CLUB

PRESIDENT - ED BOSCO - WL7BOR - 345-4530

CLUB PHONE: 345-0719

OCTOBER

OCTOBER

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OCTOBER

1989

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Oct 6 General Meeting - Spenard Rec Center, 2020 W 48th St 7 PM

Oct 11 Board Meeting - 7 PM Hope Cottage Mtg Rm, 2805 Bering St
Between Northern Lights and Benson

Nov 3 General Meeting - Spenard Rec Center, 2020 W. 48th St 7 PM

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NEW LICENSES OR UPGRADES

	CALL	FROM	TO
ANCHORAGE			
THOMAS E. BATES	NL7ON	ADVANCED	AMATEUR EXTRA
KENNETH W. EGGLESTON	WL7BTH	NOVICE	TECHNICIAN
ROBERT L. GRIFFIN	WA9HRI	GENERAL	ADVANCED
MICHAEL LIVINGSTON		NO LICENSE	NOVICE
KEVIN L. TUCKER		NO LICENSE	NOVICE
EAGLE RIVER			
TIMOTHY H. COMFORT		NO LICENSE	TECHNICIAN
LARRY L. HICKMAN		NO LICENSE	NOVICE
CLAUDE R. LIENBEE JR.	WL7BRS	NOVICE	TECHNICIAN
JOHN H. MARTON	NL7NM	ADVANCED	AMATEUR EXTRA
JEANIE C. SIMPSON	KA0FAT	NOVICE	TECHNICIAN
MARY K. SOLTIS	WL7BKO	NOVICE	TECHNICIAN
FAIRBANKS			
BRUCE M. CONGLETON	WA4RAJ	GENERAL	ADVANCED
RIP W. CURTIS		NO LICENSE	GENERAL
MILTON R. DESROCHERS	WL7BRY	TECHNICIAN	GENERAL
KYLE T. FRANKS	NL7OY	GENERAL	ADVANCED
GARALD R. HOBSBS	WL7ACA	NOVICE	TECHNICIAN
DONALD L. STICHLER	AL7HK	ADVANCED	AMATEUR EXTRA
JOYCE A. WORNER	WL7BVK	NOVICE	GENERAL

JUNEAU

SOLDOTNA

submitted by Roger Hansen, KL7HFQ, VEC Director)

General Meeting, Sept. 1, 1989

President Ed Bosco, WL7BOR, called the meeting to order at approximately 7 p.m. Introductions of members and announcements were made regarding the upcoming Ham-Fest and Flea Market which will be held on Sept. 23 and 24.

Fall Raffle tickets are printed and ready to be sold. Please see Lil Marvin, NL7DL, to obtain tickets.

Life membership for Bill Harris, WL7AFN, was voted on and approved.

Rick Marvin, KL7YF, asked members to be patient as his team does experiments to eliminate the intermod problems on the 146.94 repeater.

Roger Hansen, KL7HFQ, will be ordering some new FCC rule books. Talk to him if you want one.

To encourage vendors to keep their booths open until the end of the flea market, it was decided to reinstate the vendor's only drawing at the end of the market.

Guest speaker Ian Hunt, VK5QX, visiting from Australia gave a talk on mobile equipment installation and problems with automobile electrical interference.

Ed Bosco has received numerous phone calls from people interested in becoming an amateur radio operator. He is looking for someone to be an Elmer to prospective hams.

Lil Marvin has agreed to teach a code class if someone will teach the technical section. Contact Ed Bosco if interested.

American Red Cross director Ted Harris from California in Anchorage with the flood disaster thanked the club for their help during last weekends flood. He is also seeking volunteers to help the Red Cross this weekend to contact people with flood damage claims. Over 500 homes were affected.

For the club new show-and-tell policy, Mark Hadley, KL7HD, demonstrated his ICOM 32 AT dual band handheld and KL7WP demonstrated his new Yaesu FT 747 mobile transceiver.

Ian Hunt ended the meeting by showing us pictures and information about over the horizon radar and high frequency interference.

Meeting was adjourned at 9:30 p.m. Submitted by Nancy Brophy, NL7PN

AARC Board Meeting, September 13, 1989

Ed Bosco, president, brought the meeting to order at 7:20 p.m.

Fred, KL7HFM, submitted the financial report which will be printed in the newsletter.

It was decided to renew the advertisement in the yellow pages of the Anchorage Telephone Directory under club listings.

Fred, KL7HM, gaming chairman, reported that he is optimistic that next year's income from gaming sales will improve.

Rick Marvin informed the board that fall raffle ticket sales are progressing and reminded those who haven't picked up their tickets to sell to be sure and contact Lil Marvin, NL7DL.

Rick reported that the intermod problem on the 146.94 repeater has been identified and he is working to resolve the problem. He also gave the board the sad news that the 444.7 repeater is out of service due to severe damage to the hard-line coax. He will be assessing the situation.

Fred, KL7HFM, informed the board that a new computer is needed to make continued operation of the packet bulletin board service feasible. He suggested that the existing computer be retained by the club and used for the club newsletter or membership committee.

After much discussion, it was decided that Fred would put together a proposal of the type and cost of equipment needed and present it at the next board meeting. It will be brought to the attention of the club members at the October general meeting and voted on at the November general meeting.

Ed Bosco has reserved the large meeting room at the Spenard Recreation Center for the remainder of the year and will attempt to secure it for next year.

Bill, AL7BB, gave the board the good news that a Swan 260 is on it's way to the new amateur radio operator in Provideniya thanks to the help of Roger Hansen, KL7HFQ, and Lance Dunbar, AL7BK.

Meeting was adjourned at 8:50 p.m.

Submitted by Nancy Brophy, NL7PN

Five months as SYSOP of KL7AA-7 have given me some very valuable experience. I accepted the PBBS mainly to learn more about the Packet mode and it's associated networking.

The most valuable lesson I have learned is an appreciation of the vast world of Packet radio, it's expanses and complexities.

There are approximately fifty members of the AARC who use the PBBS, and probably another twenty users who are not members, or live in surrounding communities. This equates to about one of seven club members being Packet user of the PBBS.

The present computer is an " XT " clone purchased from Walt Pierce by the club when the AARC first entered the world of PBBS. It has been a good starting tool, but the system is fast approaching it's maximum capacity. As you may have heard, a few expansions are in the offing which will greatly increase the community service value of the PBBS. Addition of the Iceworm channels should at least double the system activity. And there is a current movement to access FEMA Regional Headquarters in Vancouver, Wa. to our system. These added services will not be possible using the present computer system.

The XT should do a fine job of serving the Club in the future if it can be assigned to another active committee such as Membership or Newsletter.

I have studied the presently available computer systems in detail to determine just what would serve the PBBS best and give the AARC the most " bang for it's buck " and am now prepared to recommend the purchase of a new computer system. Certain criteria were weighed against the current trends, and before conclusions can be drawn, many manufacturers brochures and specification sheets have to be studied. It is a certainty that the new machine will be a " 386/20 ". Multi-user capability along with more than one megabyte of memory is indicated. At least 40 megabyte of hard disk storage, with provisions to adapt the existing tape backup and floppy disk versatility will characterize the mass storage portions of the system. An absolutely mandatory feature will be FCC Class B Acceptance. Approximately half of the computers on the market today are automatically disqualified by this one feature. Some of the other criteria are: Directly addressable RAM to 16 megabytes. Two serial and one Parallel ports. A minimum of eight motherboard expansion slots. Power supply capacity of at least 200 watts. Phoenix BIOS 1989 version. Zero wait states. The use of " Cache RAM " will enhance system execution speed, but the system clock should be at least 20 Mhz. SRAM type of memory is desirable due to it's lower power consumption and speed of operation. All of this and the most significant criteria of all is to keep the price below \$4000.

Surprisingly, there are a few which fill the bill. I will expect to announce the final selection at the October club meeting and ask your consideration for a vote at the November meeting.

A METHOD OF CHARGING AN AUXILIARY BATTERY IN THE MOBILE HAM SHACK

The Problems in Charging the Auxiliary Battery
From the Normal Vehicle Alternator :-

- (1) The conventional method of two diodes, one in series with each battery from the alternator is not the best way as neither of the batteries can be charged fully. The voltage drop of at least 0.6 volts for each diode prevents the voltage across each battery from rising to the full charge value.
- (2) If both batteries are in a discharged condition at the time the engine is started the load on the alternator can be excessive due to both batteries requiring a large rate of charge.

A typical mobile scenario might be :-
A vehicle in a remote location where the radio equipment has been operative for a considerable time, long enough to lower the charge in the auxiliary battery to the point of requiring a good boost. With cold weather and an engine hard to start the scene is set. The engine does start, but after much cranking. Now we have the set up for an overworked alternator breaking down particularly if the alternator needs some maintenance.

The circuit presented is a method of combatting most of the problems mentioned as well as providing some safeguards.

- (1) It is impossible with this circuit for both batteries to come on as charge load together.
- (2) The normal under the hood battery at no time supplies the auxiliary equipment with power. (See Method of Operation.)
- (3) The normal battery has its state of charge attended to first and foremost.
- (4) The series diodes tend to act as peak current limiters as well as reverse voltage stoppers.

Method Of Operation Of The Circuit

The circuit in the initial state, i.e. engine switched off, sees the two batteries isolated from each other by the open circuit provided by the contacts of RL2. Upon starting the engine the "Normal" battery B1 takes the charge from the alternator alone, until the terminal voltage rises to approximately 13.7 volts. At this point Zener Diodes D1 and D2 start to pass current causing a voltage drop to occur across R1 which causes TR1 to turn on. R2 is a current limiter on TR1 base. TR2 is DC coupled to TR1 collector and also is turned on acting as a current driver for power transistor TR3. This energises the main relay RL2 and the hysteresis relay RL1. The collector circuit of TR3 is shorted out by RL1 thus preventing the main relay from chopping on and off with changing input voltage caused by varying

engine speeds. This means that once the circuit has operated the action of the voltage sensing section is negated by RL1 until such time as the Ignition Switch is turned to the Off position, resetting the circuit.

Diodes D3 and D4 are power diodes retrieved from a unused alternator, two being used to ensure current handling capabilities since here they are handling DC.

The two heavy duty diodes D3 and D4 prevent reverse current flowing under restart conditions where the ignition switch may not be returned to the off position before the attempt is made. If they were absent excessively high current could flow.

The two Zener Diodes D1 and D2 are 6.8 volt 1 watt nominal rating. Any combination of diodes that arrive at a final switching voltage of approximately 13.6 to 13.7 volts is satisfactory.

TR1 and TR2 are quite ordinary transistors. Any NPN, PNP units with collector current ratings of 150 to 300 milliamps will do. TR3 is a regular type of economy flat-pack NPN power transistor capable of handling up to 800 milliamps as most headlight relays require currents of this order for proper operation.

Relay RL1 is a light duty relay providing a constant path for the coil circuit of RL2 once activated.

Relay RL2 is a heavy duty relay of the automotive headlight type. These are available at most auto wreckers at a modest cost and are able to handle the requirement for reasonable heavy currents. This type of relay does not seem to come with more than one contact set hence the need for RL1.

The cable used between batteries and to the load distribution point is 70/.0076 or equivalent automotive loom cable. It must be capable of carrying around 40 Amps.

Capacitor C1 is used to "slug" the relays to prevent them from chattering at the switching time. Its value may need to be adjusted depending on the relays being used.

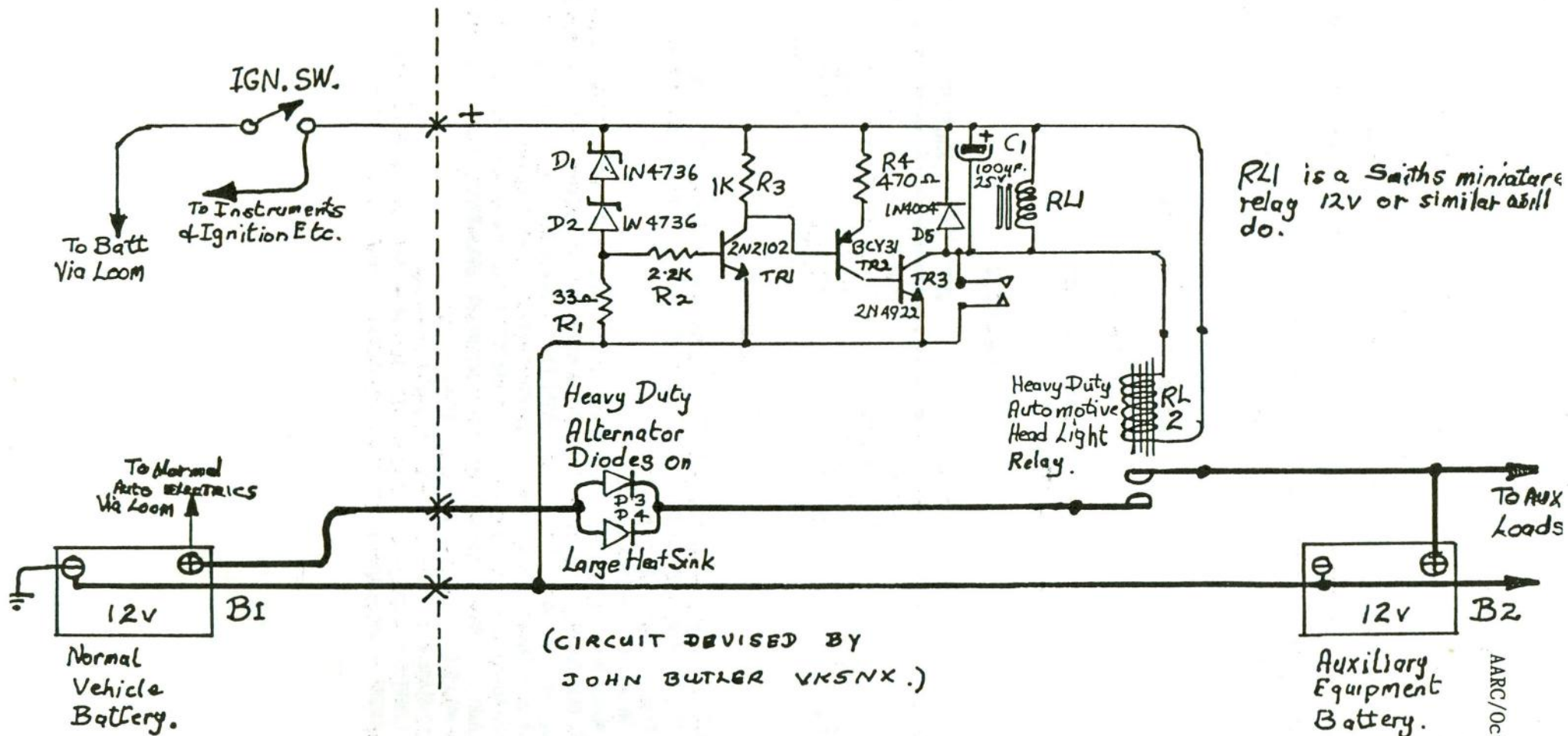
D5 is a typical 1 amp diode used as a back EMF stopper.

Installation.

The auxiliary battery and associated additional circuitry can be installed within the vehicle according to your own preferences and adapted to suit differing vehicle mechanical situations. Multi-pin plugs and sockets suitable for connection can often be obtained from automotive wrecking yards. They are to be found connected to automotive wiring looms. Should there be any doubt as to the current handling capability of the connector contacts they can usually be easily parallel connected.

(Adapted from an article by John Butler VK5NX.)

AUXILIARY BATTERY CHARGING ARRANGEMENT for AUTOMOBILE USE



FLASH ABOUT UHF REPEATER

KL7AA UHF Repeater 444.7 will be off the air due to Flame Seared Transmission line. A Local FM station had a fire in the PM of 9-11-89 which burned their 4" Transmission line and in the process the Club's was also damaged. Arrangements are being made to obtain necessary parts to repair the Damage. Projected date of return to service is unknown at this time. per KL7YF

ANCHORAGE AMATEUR RADIO CLUB

ROSTER CHANGES

EFFECTIVE SEPTEMBER 1, 1989

NEW MEMBERS

CALL	NAME	ADDRESS	CITY	STATE	ZIP	PHONE
AL7LA	MEARS, JOHN R.	POB 843	PALMER	AK	99645	H:745-6835 W:786-1177
WS0J	PAPPAS, DINO	117 B ILIAMNA	FT. RICHARDSON	AK	99505	H:428-1920
NL7QZ	TETREAULT, CHARLES E.	POB 671408	CHUGIAK	AK	99567	H:688-1412
NL7SM	WEST, DONNA	POB 452	STERLING	AK	99672	H:262-5930

CHANGES, ETC.

NL7DE BANSE, ROSE -- CHANGE ADDRESS TO POB 661, COOPER LANDING, AK 99572 AND DELETE PHONE #
 AL7FX BANSE, STEVE -- CHANGE ADDRESS TO POB 661, COOPER LANDING, AK 99572 AND DELETE PHONE #'S
 WL7D BOWLIN, FRANK -- CHANGE WORK PHONE TO 257-8040
 NL7PB GANGI, TONY -- DELETE -- MEMBERSHIP LAPSED
 KL7TO GIEBEL, ALFRED W -- CHANGE ADDRESS TO 8110 JEWEL LAKE RD, ANCHORAGE 99502 AND CHANGE PHONE TO 243-2195
 N7KIR GRAMLING, DEAN OLIVER -- CHANGE ADDRESS TO 7510 TIMOTHY CIR #1, ANCHORAGE, AK 99502-3189 AND DELETE PHONE #'S
 N7KKP GRAMLING, LYNN -- CHANGE ADDRESS TO 7510 TIMOTHY CIR #1, ANCHORAGE, AK 99502-3189 AND DELETE PHONE #
 WL7AFN HARRIS, BILL -- CHANGE ADDRESS TO HC 03 BOX 8305, PALMER, AK 99645
 AL7HI LARSEN, W. KENT -- CHANGE ADDRESS TO 3215 NE PROMONTORY RD, CORINNE, UT 84307 AND DELETE PHONE #'S
 KC6BXG MORAN, LARRY L -- CHANGE ADDRESS TO 19241 UPPER SKYLINE DR, EAGLE RIVER, AK 99577 AND DELETE PHONE #
 AL7EF POULSON, HAROLD E -- DELETE -- MEMBERSHIP INVALID
 NL7MI POULSON, MARLENE G -- DELETE -- MEMBERSHIP INVALID
 NL7HT SOMMER, ROBERT C -- CHANGE ADDRESS TO POB 165, GALENA, AK 99741 AND DELETE PHONE #'S
 KL7ISA WILSON, ROBERT -- CHANGE CALL SIGN TO AL7KK AND ADD HOME PHONE NUMBER - 345-6047

OVER THE HORIZON RADAR

Although this article is a little off the subject of RTTY Mailboxes, I feel that it is a subject that will affect all phases of Amateur Radio, and as such we all should be interested in the development concerning the United States installation of the Over the horizon, Back Scatter, Radar System. I'm confident that we all have spoken unprintable words about the Russian "woodpecker", (their version of a pulse type over-the-horizon system), and now we're told that we'll soon have one in our own backyard. This is progress?

This \$600 million dollar radar system consists of four major sites, located on the east coast, west coast, Alaska, and one in my backyard, in Northeastern South Dakota. All of these systems look outward from the United States, with the exception of the one in South Dakota, which will be focused inward (south), to detect various missile types approaching from the South. This centrally located transmitter/receiver site will cover from Maine to Florida, across the southern States to California, and up the coast to Washington. Instead of the familiar "woodpecker" sound, the U.S. radar system will be of the CW type, and will have a distinctive "chirping" sound.

But you ask, "What does having this system operational have to do with Amateur Radio"? When the United States Air Force was asked "Will this radar system cause interference to the Amateur Radio Service", they said: "Although the Air Force does not intend to operate the OTH-B radar system in the Amateur bands, they (the amateur bands) are adjacent to bands in which the radar can be expected to operate. Thus, enough of the radar's energy could possibly fall into an Amateur band to produce interference to the users there. Due to sky wave propagation, specifically predicting when or where any interference would occur is impossible". Now that sounds to me like your neighbor spraying weed killer on a windy day, and hoping that it doesn't drift over into your rose garden!

The OTH-B radar system is designed to operate between 5.9 and 28.0 MHz, and the signals from this system will be very strong on both coasts of the United States. Defense of the United States is quite naturally a very important thing, and since I served almost 22 years in the United States Air Force defending our Nation, I'm a bit sheepish about speaking out too loudly about advances in radar technology. However, at the same time, I wonder if the OTH-B end-system operational features aren't well known, and the experimentation and qualification of this system won't be done "on the air", without any previous knowledge of what to expect. The Russian Woodpecker has been disrupting HF communications for years, and if recent press information is correct, they are not much closer to an operational system than when they started.

I'm not sure just what you and I can do to prevent unwarranted interference to our Amateur bands from the OTH-B system. But I do know that we should be aware of the coming of this high technology radar system, and be prepared to carefully and methodically document interference if it should occur. Of course there are many other commercial services that share the HF spectrum with Amateur Radio, and I'm sure that interruption to commercial services will not be taken lightly. Stay tuned for Round Two!

Author- Dick Uhrmacher
KOVKH 212 48th St
Rapid City, SD 57702

Taken from RTTY Journal
Submitted by Harold Hitchen
KL7PG

FOR SALE FOR SALE

Trapped Vertical Antenna

10-15-20 Meters HY Gain

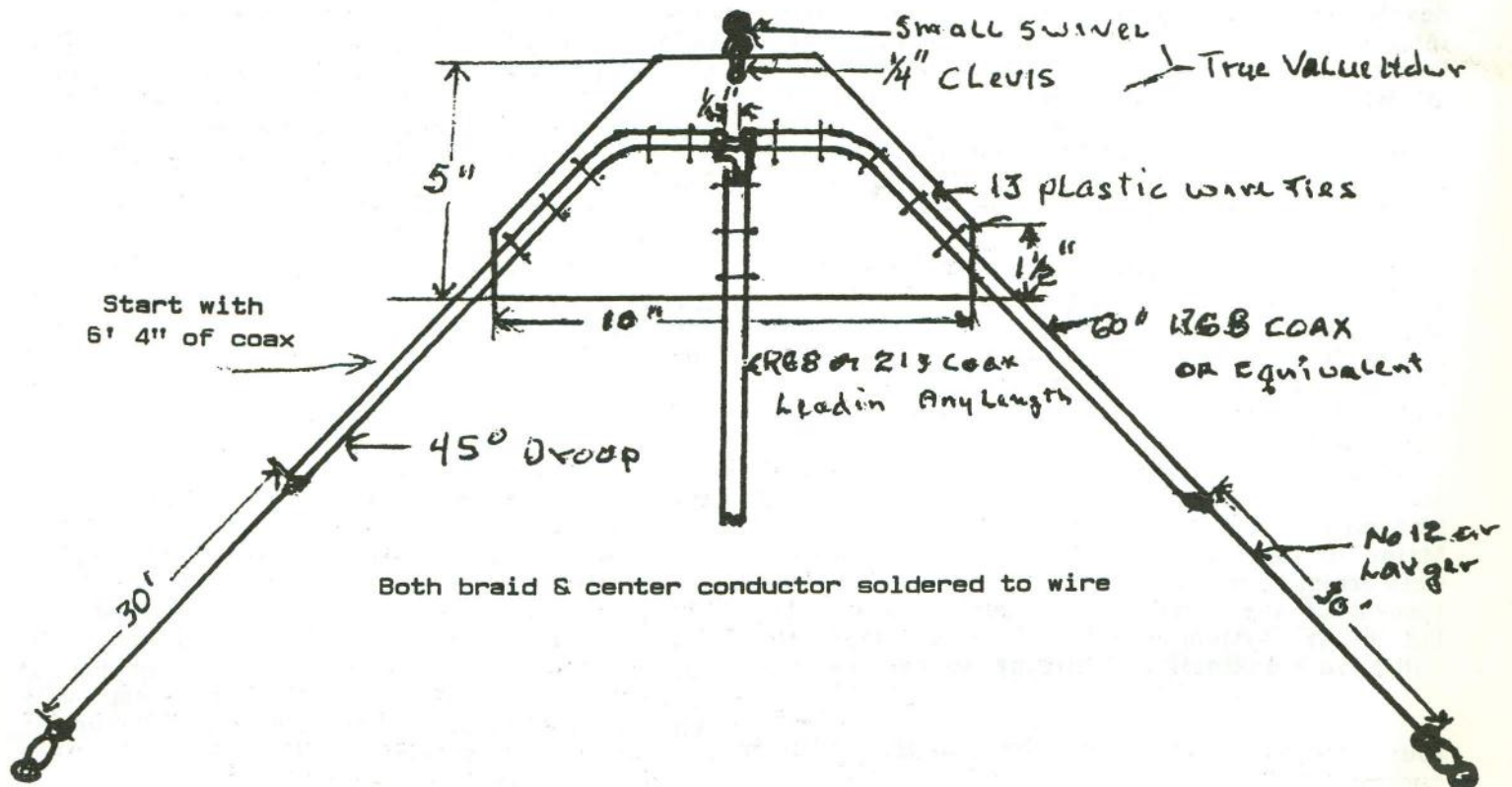
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A BROADBAND INVERTED V FOR 75 METERS

2

BROADBAND INVERTED VEE
FOR 75 METERS

Obtain 60' 4" of RG-8 coax or its equivalent. Cut a 1/4" section of outer insulation from the center of the coax. Pull insulation back to create a 1/2" gap. Carefully cut the shield braid at the center of this gap, but take care not to cut the inner insulation (center conductor is not attached to the feedline at this point. Fold the severed braid back over the outer insulation on both sides of the gap, and tie the braids with a short piece of tinned wire. Solder your feedline to the two folded sections of shield braid, center conductor to one, feeder shield braid to the other. Tape these connections and attach the center section of the antenna to the plastic plate, per diagram.

Uncover both braid and shield for 2" on each end of your coax radiator. Twist braid and center conductor together on each end and solder. Solder 30' wire extensions to each end of the coax radiator, measured from point of connection to the braid/shield loop to the center of the eye of each end insulator. Tape these connections or cover with generous coating of silicone bathtub calk (clear lasts longest, but use peacock mauve if you like.) Droop ends of antenna approximately 45 degrees. Antenna will be pleasingly, broadband over 75/80 meter band, with reasonable SWR.

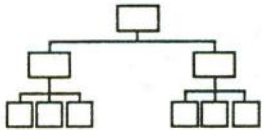
- submitted by Joe, W7VBH -



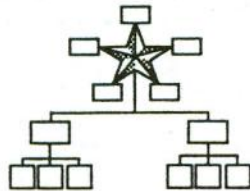
ARRL CLUB #1602

ORGANIZATIONAL CHARTS

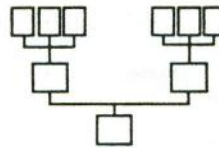
TRADITIONAL



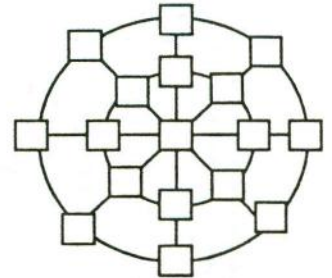
RUSSIAN



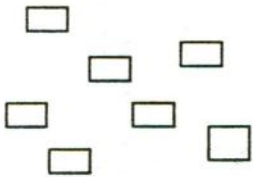
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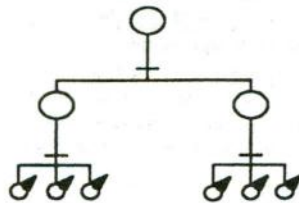
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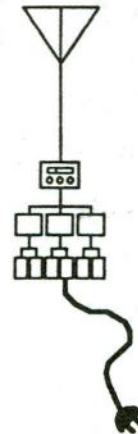
ARAB



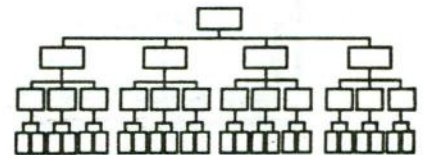
WOMAN'S LIB



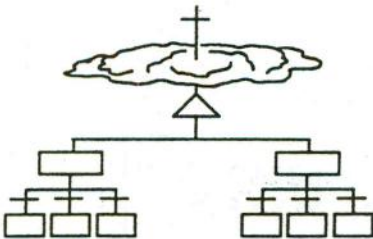
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CLUBS



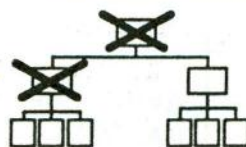
CHINESE



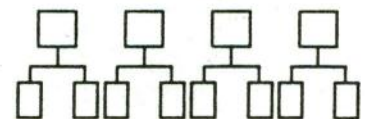
VATICAN



LATIN AMERICAN



ITALIAN



TELL 'EM
YOU SAW IT IN:

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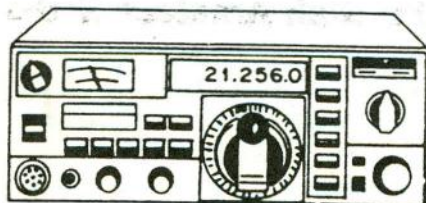
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